OPERATOR'S MANUAL

46"
SNOW
BLADE

Model Numbers
190-833-OEM

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

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RULES FOR SAFE OPERATION

Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times when operating equipment.

1. Read the tractor and snow blade owners manuals and know how to operate your tractor before using tractor with snow blade attachment.

2. Never operate tractor and snow blade without wearing proper clothing suited to weather conditions and operation of controls.

3. Never allow children to operate tractor and snow blade, and do not allow adults to operate without proper instructions.

4. Always begin with transmission in first (low) gear and gradually increase speed as required.

LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS -- ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

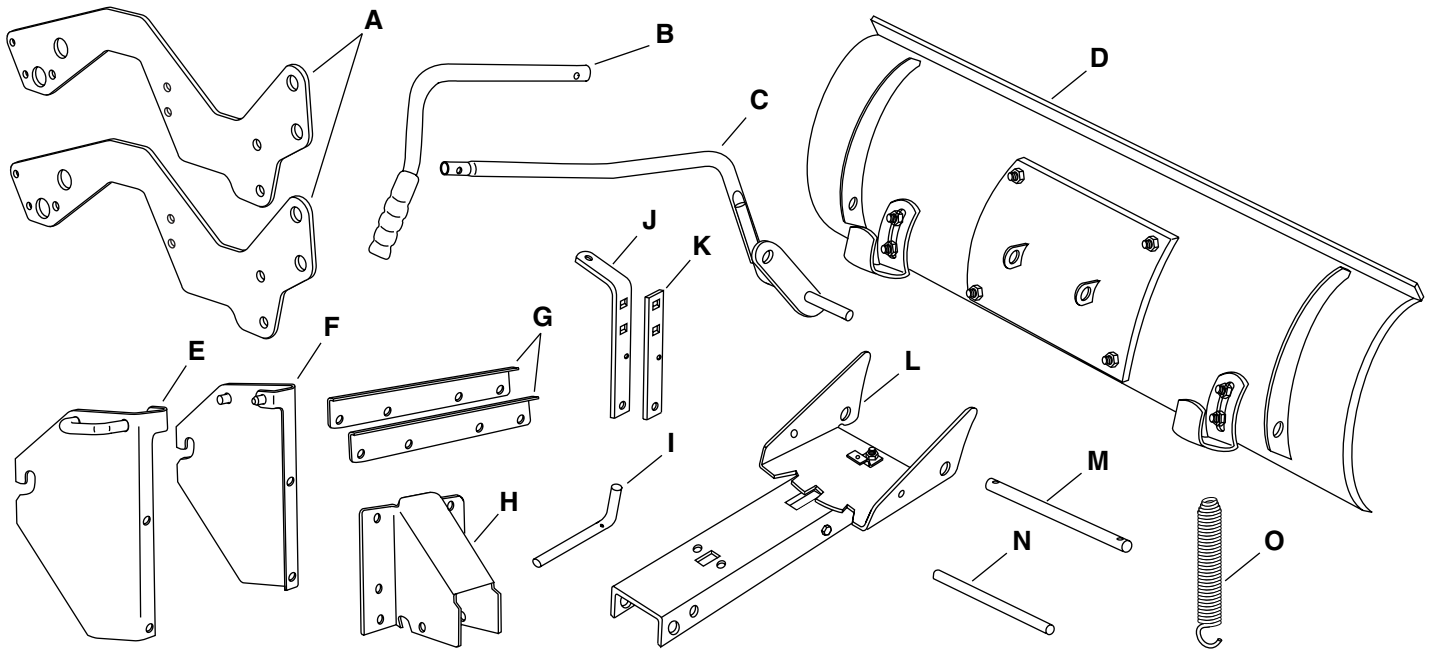
UNPACKING

Open carton. Remove parts and literature. Make certain all parts and literature are removed before the carton is discarded.

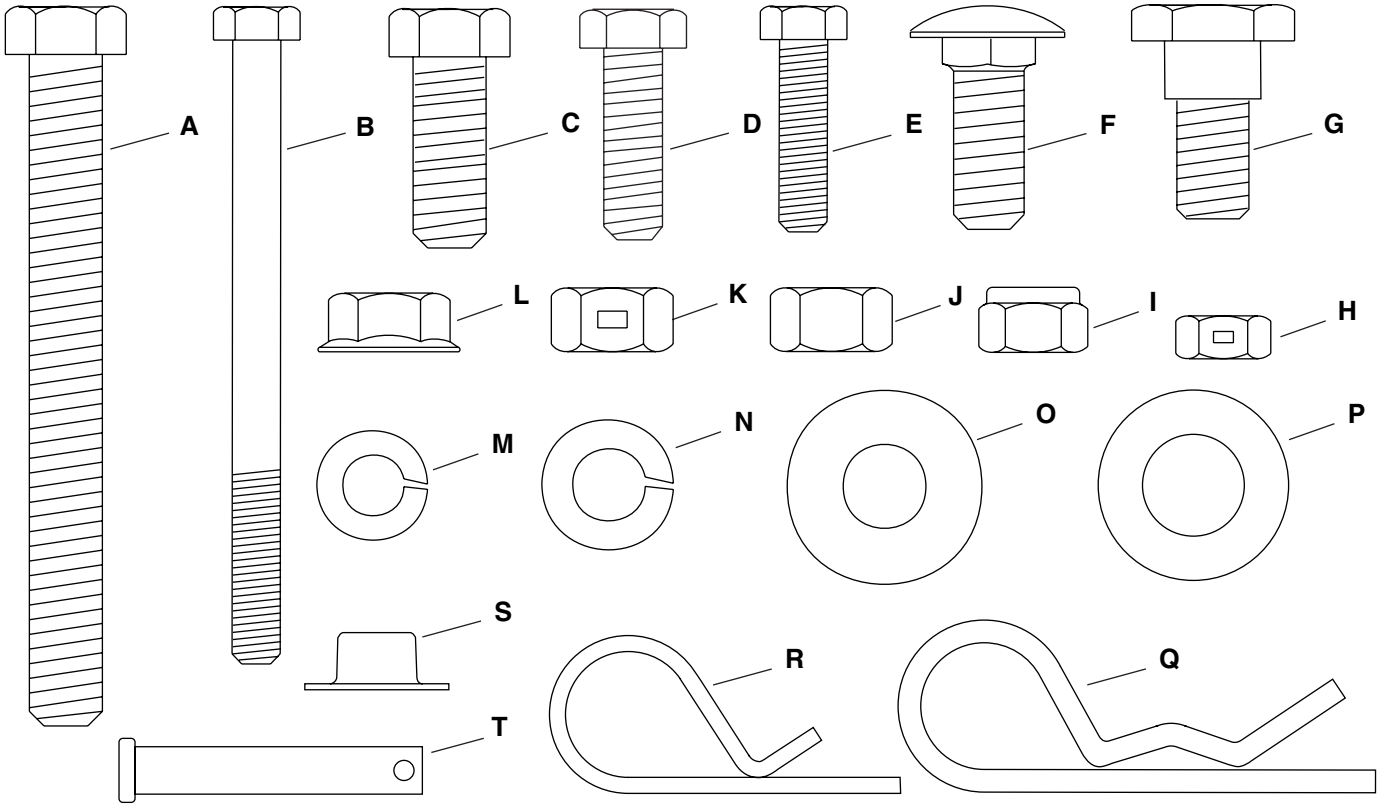
Lay out all parts according to the illustration below.

CARTON CONTENTS

A	2	Frame Brackets
B	1	Upper Lift Handle
C	1	Lower Lift Handle Assembly
D	1	Blade Assembly
E	1	R.H. Hitch Bracket
F	1	L.H. Hitch Bracket
G	2	Angle Brackets
H	1	Pivot Support Bracket
I	1	Channel Pivot Pin
J	1	Angle Lock Bar (Long)
K	1	Angle Lock Bar (Short)
L	1	Channel Assembly
M	1	Pivot Shaft
N	1	Spring Mount Rod
O	1	Blade Adjust Spring



SHOWN FULL SIZE



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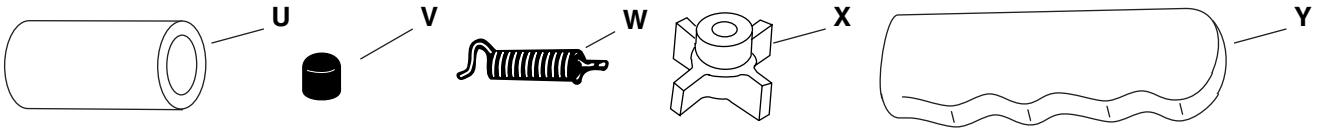


CONTENTS OF HARDWARE PACK

Key	Qty	Description	Key	Qty	Description
A	1	Hex Bolt, 3/8" x 3-1/2"	N	2	Lock Washer, 3/8"
B	1	Hex Bolt, 1/4" x 3-1/4"	O	1	Flat Washer, 3/8"
C	8	Hex Bolt, 3/8" x 1" Lg.	P	1	Flat Washer, 1/2"
D	6	Hex Bolt, 5/16" x 1" Lg.	Q	2	Hairpin Cotter, 1/8" (large)
E	2	Hex Bolt, 1/4" x 1"	R	3	Hairpin Cotter, 3/32" (small)
F	2	Carriage Bolt, 3/8" x 1" Lg.	S	2	Palnut, 3/8"
G	2	Shoulder Bolt	T	1	Clevis Pin, 1/4" x 1-1/2"
H	3	Hex Lock Nut, 1/4"	U	2	Spacer
I	6	Nylock Nut, 5/16"	V	1	Plastic Cap
J	1	Hex Nut, 3/8-16	W	1	Angle Lock Spring
K	4	Hex Lock Nut, 3/8"	X	1	Knob
L	8	Flange Nut, 3/8"	Y	1	Handle Grip
M	4	Lock Washer, 5/16"			

SECTION 1:
ASSEMBLY INSTRUCTIONS

NOTE: Right hand (R.H.) and left hand (L.H.) are determined from the operators position while seated on the tractor.

TOOLS REQUIRED FOR ASSEMBLY

(2) 7/16" Wrenches
(2) 1/2" Wrenches
(2) 9/16" Wrenches
(1) 3/4" Wrench or Adjustable Wrench

REMOVING PARTS FROM CARTON

Remove all parts and hardware packages from the carton. Lay out all parts and hardware and identify using the illustrations on pages 2 and 3.

NOTE: Not all parts in the hardware pack will be needed for any one tractor fit-up.

PREPARING THE LAWN TRACTOR

CAUTION: Before beginning preparation, select a firm and level surface which is large enough to accommodate the snow blade attachment and tractor. Engage brake lock.

WARNING: Stop engine and let muffler cool before installing brackets.

1. Allow engine, muffler and exhaust deflector to cool before beginning.
2. Disconnect the spark plug wire(s) from the spark plug(s) and ground against the engine.
3. Remove the mowing deck as instructed in the belt removal section of the owner's manual for the lawn tractor.

REMOVING PARTS FROM TRACTOR

4. Remove any front mounted attachments which may be installed on your tractor.
5. Mark and save all removed parts.

ASSEMBLING BRACKETS TO TRACTOR

FAST-ATTACH TRACTOR FRAMES

No bracket assembly required. Skip to ASSEMBLING THE SNOW BLADE.

STANDARD TRACTOR FRAMES WITH 15" TIRES

6. Attach a frame bracket to each side of the tractor frame. Assemble three 5/16" x 1" hex bolts and 5/16" nylock nuts to the holes shown figure 1.
7. Assemble a shoulder bolt and a 3/8" hex lock nut to the **upper** hole in each frame bracket as shown in figure 1.

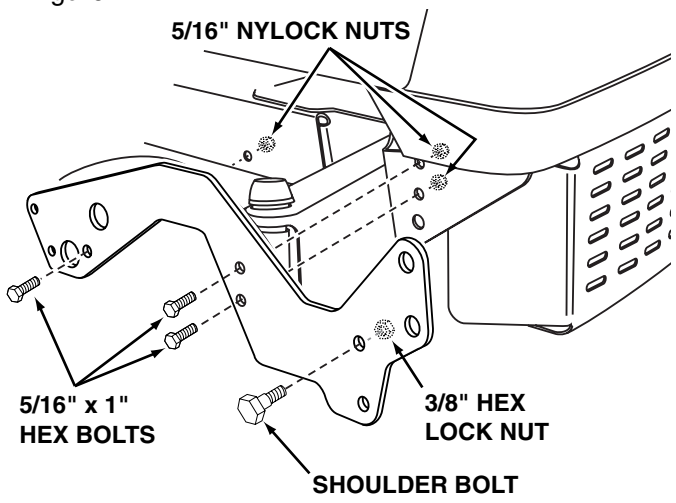


Figure 1

STANDARD TRACTOR FRAMES WITH 16" TIRES

8. Attach a frame bracket to each side of the tractor frame. Use two 5/16" x 1" hex bolts and 5/16" lock washers in the holes shown in front of the axle. Use a 1/4" x 1" hex bolt and 1/4" hex lock nut in the rear hole as shown. **Tighten carefully** to avoid stripping threads in tractor frame. See figure 2.
9. Assemble a shoulder bolt and a 3/8" hex lock nut to the **lower** hole in each frame bracket as shown in figure 2.

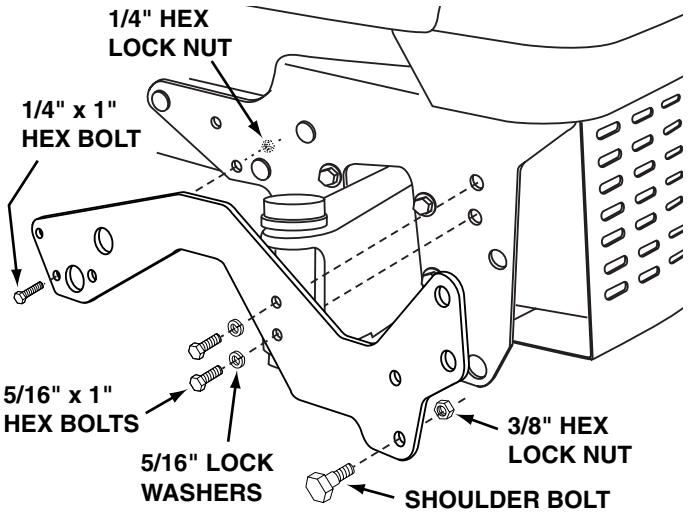


Figure 2

ASSEMBLING THE SNOW BLADE

10. Assemble the long and short angle lock bars together using two 3/8" x 1" carriage bolts, 3/8" lock washers and 3/8" hex lock nuts. Make sure all holes are aligned. See figure 3.

11. Insert the straight hook end the angle lock spring into the middle hole in the angle lock bars. The curved hook on the other end of the spring should be facing up. See figure 3.

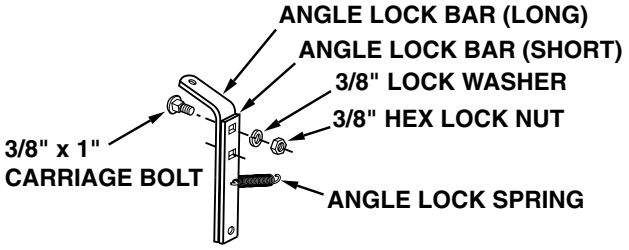


Figure 3

12. Insert the curved hook of the angle lock spring **up** through the hole in bracket (A). See figure 4.

13. Insert the angle lock bars down through the slot in the channel. Underneath the channel place spacers on both sides of the angle lock bars and insert a 1/4" x 3-1/4" hex bolt through the sides of the channel, the spacers and the angle lock bars. Secure the bolt with a 1/4" hex lock nut, tightening so that the angle lock bars still pivot freely. See figure 4.

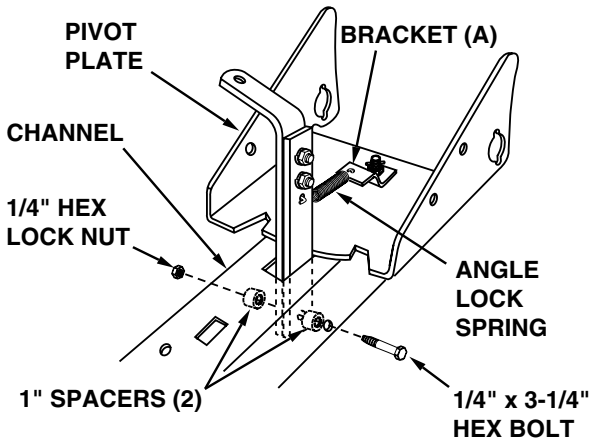


Figure 4

14. Using a hammer, assemble a 3/8" palnut onto one end of the spring mount rod. Insert the other end of the rod through the **rear set of holes** in the pivot plate. Turn the pivot plate onto it's side on a block of wood and hammer the remaining palnut onto the other end of the rod. See figure 5.

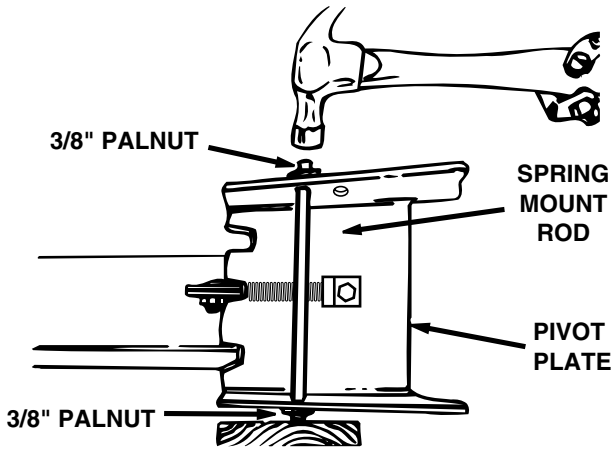


Figure 5

15. Insert the 3/8" x 3-1/2" hex bolt through the angle lock spring. Assemble a 3/8" hex nut about 1" onto the end of the bolt. See figure 6.

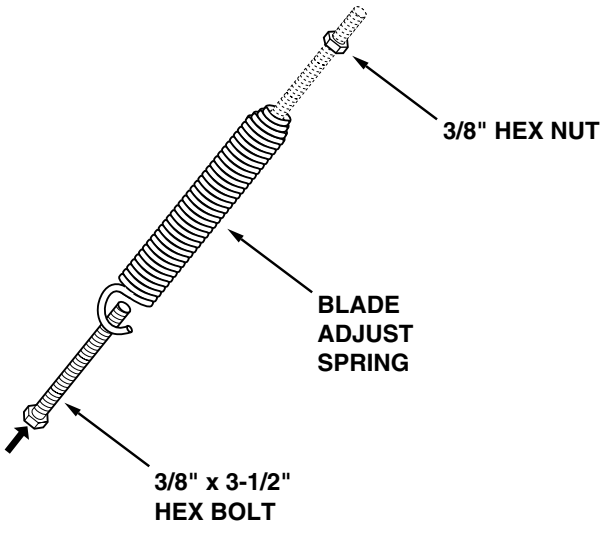


Figure 6

16. To attach the channel assembly to the blade, align the pivot plate between the welded brackets on the back of the blade. Insert the pivot shaft through the holes in the pivot plate and the welded brackets. Secure the pivot shaft with two 1/8" hair cotter pins. See figure 7.
17. Hook the blade adjust spring over the spring mount rod as shown. Insert the bolt through the hole at the top of the blade and assemble the 3/8" flat washer and the knob onto the bolt. Turn the knob until it is tight. Place the plastic cap over the end of the bolt. See figure 7.

NOTE: The blade is now set at the lowest spring tension. To adjust the tension see the Adjustments section.

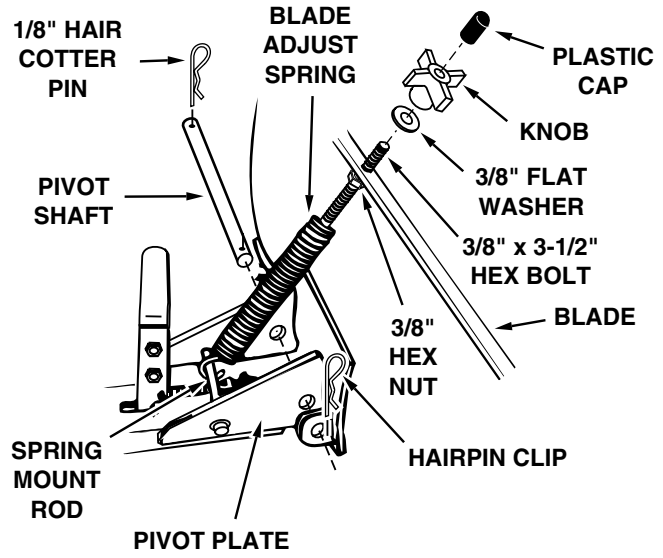


Figure 7

18. Arrange the angle support brackets as shown in figure 8. Assemble the angle support brackets to the pivot support bracket using four 3/8" x 1" hex bolts and 3/8" flanged nuts.

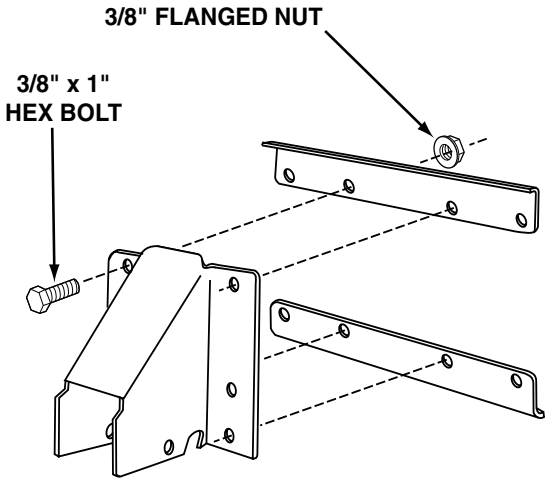


Figure 8

19. Assemble the R.H. and L.H. hitch brackets to the angle support brackets using four 3/8" x 1" hex bolts and 3/8" flanged nuts. See figure 9.

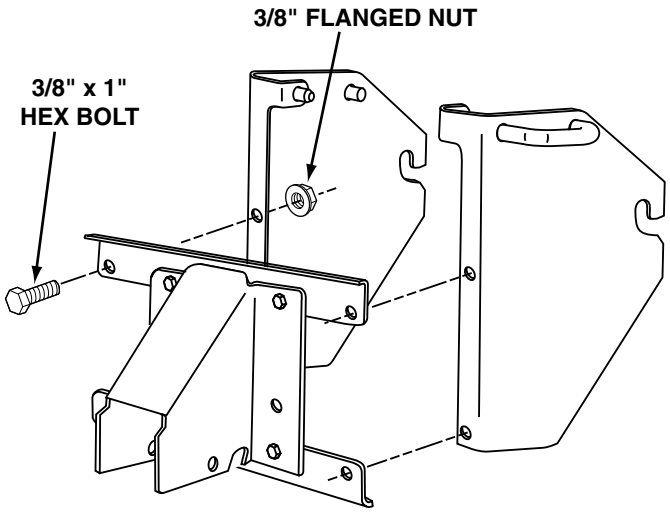


Figure 9

20. Attach the channel assembly to the tractor by placing the end of the channel inside the pivot support bracket. Assemble the 1/2" flat washer onto the channel pivot pin and insert the pin through the holes in the pivot support bracket and the channel. Secure with a 3/32" hair cotter pin. See figure 10.

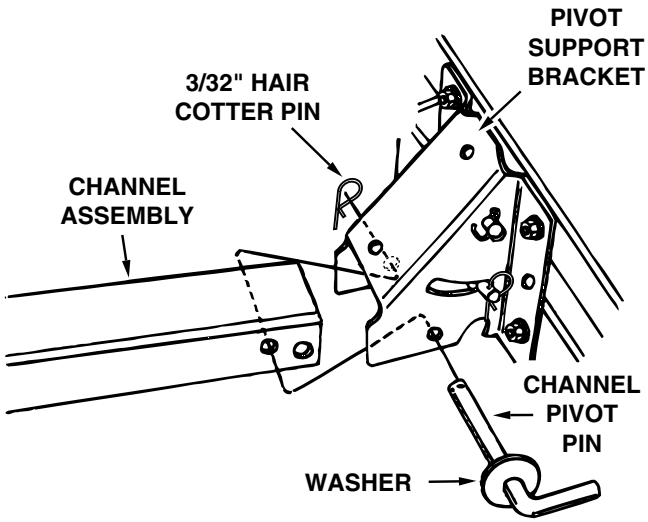


Figure 10

21. Insert the end of the lower lift handle assembly through the notch in the pivot support bracket and through the holes in the channel. Align the lift link pin with the hole in the welded bracket on the lower lift handle assembly. Insert the lift link pin through the hole in the bracket and secure it with a 3/32" hair cotter pin. See figure 11.

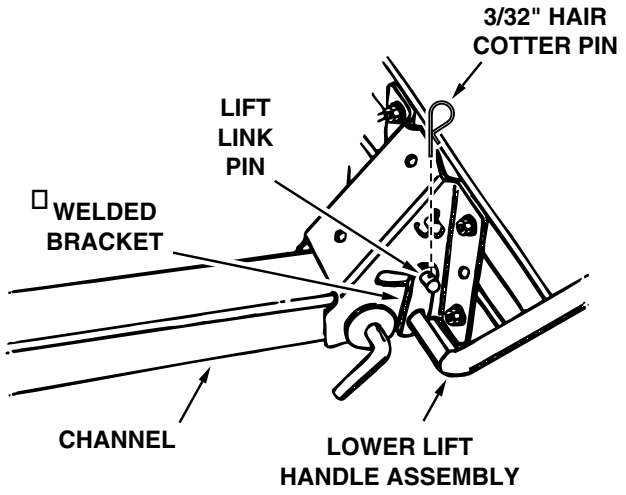


Figure 11

22. Assemble the handle grip onto the upper lift handle. See figure 12.

23. Place the upper lift handle onto the lower lift handle assembly. Align the holes and secure with the clevis pin and a 3/32" hair cotter pin. See figure 12.

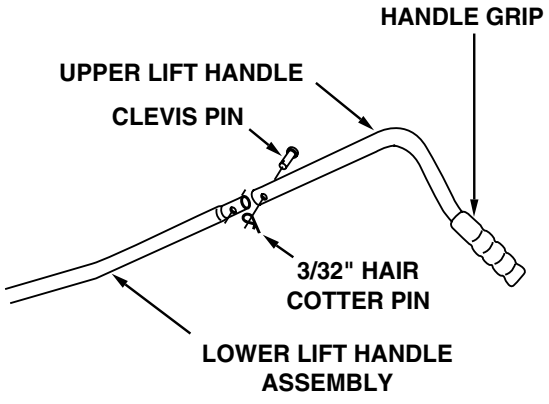


Figure 12

ATTACHING SNOW BLADE TO TRACTOR

QUICK ATTACH TRACTOR FRAMES

24. Pull out on the hitch assembly's attachment pins and swing the pins down away from the holes they were in. See figure 13.
25. Hook the hitch assembly onto the shoulder bolts in the tractor frame. See figure 13.
26. Align the holes in the hitch assembly with the holes in the tractor frame. Insert the attachment pins to lock the hitch assembly in place. See figure 13.

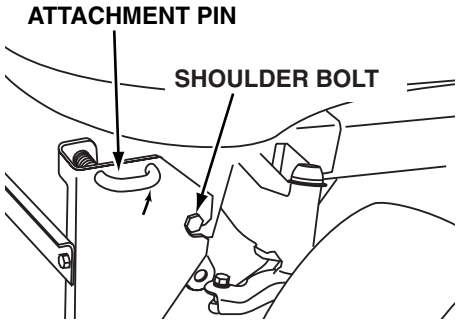


Figure 13

STANDARD TRACTOR FRAMES

27. To attach the hitch assembly to the front of the tractor, pull out on the attachment pins and swing the pins down away from the holes they were in. See figure 14.
28. Hook the hitch assembly onto the shoulder bolts assembled to the frame brackets. See figure 14.
29. Align the holes in the hitch assembly with the holes in the frame brackets. Insert the attachment pins to lock the hitch assembly in place. See figure 14.

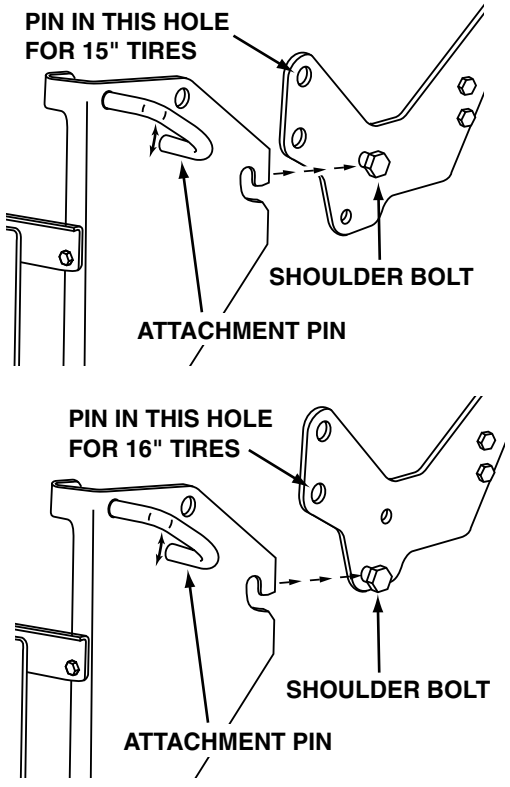


Figure 14

SECTION 2: OPERATING THE BLADE

CAUTION: Inspect the area to be worked carefully before operating the snow blade. Avoid pipes, roots, curbs or other heavy obstructions.

The lift handle, located on the left side of the snow blade, is used to raise and lower the blade. Pulling the lift handle all the way back raises the snow blade. Move the lift handle forward to lower the snow blade to the ground. The angle of the blade can be adjusted to the right or left by pulling back on the angle lock bar, shown in figure 15, and repositioning the head of the blade to the right, left or center.

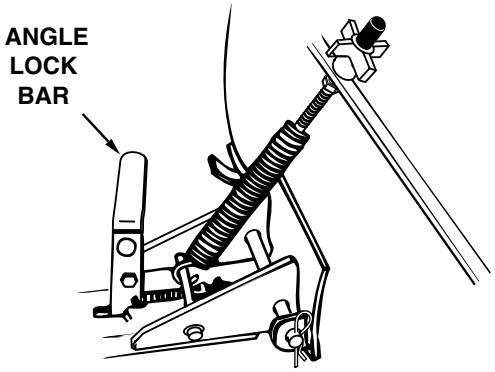


Figure 15

CAUTION: Know the terrain. Avoid exceptionally sharp slopes or drop offs which may be hidden by the snow. Never run the snow blade into heavy material at high speed.

Always begin with the engine speed at the lowest possible setting, and gradually increase speed as required. When working in a large area, do not attempt to move the snow or dirt all in the same direction, causing an excessive buildup, which would become larger with each pass.

CAUTION: Always lower blade to ground before leaving tractor.

SECTION 3: ADJUSTMENTS

To Adjust Blade Spring

The blade adjust spring allows the blade to tilt forward to bypass solid obstructions. The normal adjustment is for the spring bolt to extend 1" through the top of the blade.

To increase the spring tension loosen the knob, screw the nut farther down onto the bolt and then retighten the knob.

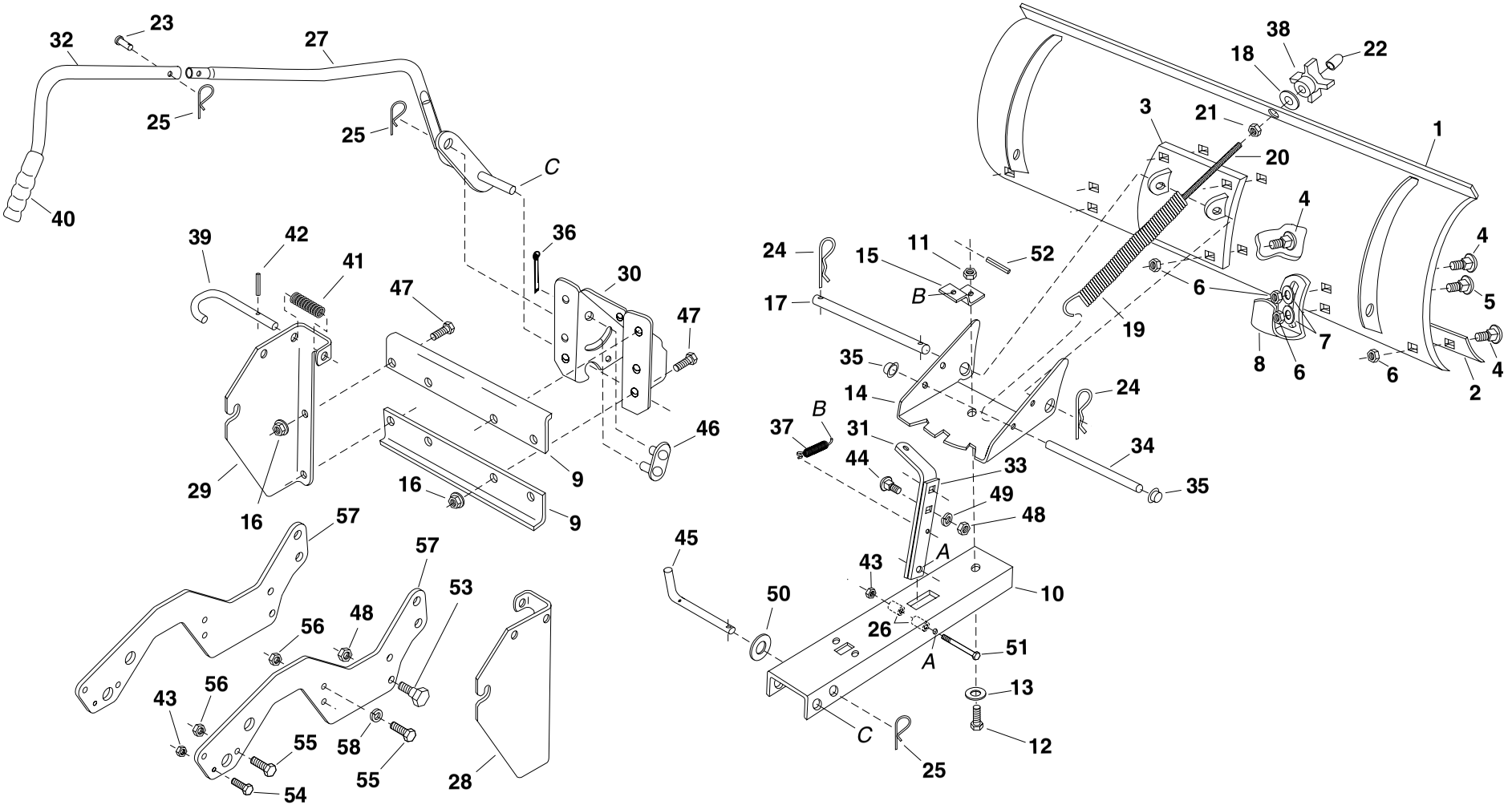
To decrease the spring tension loosen the knob, screw the nut farther out toward the end of the bolt and then retighten the knob. Refer to figure 8 on page 6.

To Adjust Skid Shoes

The skid shoes at the ends of blade may be raised for close work on smooth surfaces or lowered to raise the blade to work on rough or uneven areas. Make sure both shoes are set evenly and that the nuts are retightened securely.

NOTES

REPAIR PARTS LIST FOR MODELS 190-833-OEM 46" SNOW BLADE



REPAIR PARTS LIST FOR MODEL 190-833-OEM 46" SNOW BLADE

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	63821	1	Blade - 46"	30	24023	1	Pivot Support Bracket
2	24524	1	Wear Plate - 46"	31	23129	1	Angle Lock Bar (Long)
3	62980	1	Reinforcement Plate Assembly	32	46553	1	Lift Handle, Upper
4	43080	8	Bolt, Carriage 5/16-18 x 3/4"	33	23151	1	Angle Lock Bar (Short)
5	44326	2	Bolt, Carriage 5/16-18 x 1"	34	23856	1	Spring Mount Rod
6	43064	14	Hex Lock Nut, 5/16-18 Thread	35	44917	2	Palnut, 3/8"
7	43081	4	Washer, 5/16"	36	43010	1	Cotter Pin 1/8" x 1"
8	24690	2	Skid Shoe	37	43348	1	Angle Lock Spring
9	24520	2	Bracket, Angle Support	38	47501	1	Knob
10	24347	1	Push Channel	39	47553	2	Pin, Attachment
11	43262	1	Hex Lock Nut, 1/2-13 Thread	40	43362	1	Handle, Grip
12	23131	1	Bolt, Special Pivot	41	732-3127	2	Spring, Compression
13	1540-118	1	Washer, Flat 1/2"	42	43659	2	Pin, Spring 3/16" x 1"
14	23958	1	Plate, Pivot 7 Ga.	43	43013	3	Hex Lock Nut, 1/4-20 Thread
15	23130	1	Bracket, Spring Mt.	44	43350	2	Carriage Bolt, 3/8-16 x 1"
16	47572	8	Flanged Lock Nut, 3/8-16 Thread	45	46065	1	Channel Pivot Pin
17	23122	1	Shaft, Pivot	46	63034	1	Lift Link Assembly
18	43070	1	Washer, 3/8" STD.	47	43001	8	Hex Bolt, 3/8-16 x 1"
19	9466R	1	Spring, Blade Adjust	48	43082	4	Hex Lock Nut, 3/8-16 Thread
20	44071	1	Hex Bolt, 3/8-16 x 3-1/2"	49	43003	2	Lock Washer 3/8"
21	43015	1	Hex Nut, 3/8-16 Thread	50	R19171616	1	Washer
22	44074	1	Plastic Cap	51	46071	1	Hex Bolt, 1/4-20 x 3-1/4" Lg. Gr 5
23	41-42	1	Pin, Clevis 1/4" x 1-1/2"	52	43349	1	1/4" x 1" Spring Pin
24	43343	2	Pin, Hair Cotter #4 (1/8")	53	48106	2	Shoulder Bolt, 3/8-16 x 1/2"
25	43055	3	Pin, Hair Cotter #3 (3/32")	54	43661	2	Hex Bolt, 1/4-20 x 1"
26	46053	2	Spacer, .28 ID x 1"	55	43063	6	Hex Bolt, 5/16-18 x 1"
27	63283	1	Lift Handle Assembly, Lower	56	47810	6	Hex Nut, 5/16-18 Nylock
28	24518	1	Hitch Bracket, R.H.	57	24932	2	Frame Bracket
29	24519	1	Hitch Bracket, L.H.	58	43086	4	Lock Washer, 5/16"
					48829	1	Owners Manual

If you are having difficulty assembling this product or if you have any question regarding the controls, operation or maintenance of this unit, please call the Customer Support Department. You can reach them by calling:

1-800-800-7310